



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,769	12/27/2001	Shuang Liu	DM-6950	9943

23914 7590 07/29/2003

STEPHEN B. DAVIS
BRISTOL-MYERS SQUIBB COMPANY
PATENT DEPARTMENT
P O BOX 4000
PRINCETON, NJ 08543-4000

EXAMINER

JONES, DAMERON L

ART UNIT	PAPER NUMBER
----------	--------------

1616

DATE MAILED: 07/29/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/033,769

Applicant(s)

LIU, SHUANG

Examiner

D. L. Jones

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2002 and 19 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-110 is/are pending in the application.
- 4a) Of the above claim(s) 2,10-14,16,23-26,28,35-38,40,47-65,88 and 90-110 is/are withdrawn from consideration.

- 5) ☒ Claim(s) 1,3-9,15,17-22,27,39 and 66-86 is/are allowed.
- 6) ☒ Claim(s) 29-34,41-46,87 and 89 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .

- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152) .
6) ☐ Other: .

U.S. Patent and Trademark Office
PTO-326 (Rev. 04-01)

Office Action Summary

Part of Paper No. 6

APPLICANT'S INVENTION

1. Applicant's invention is directed to polypodal chelants and uses thereof.

Note: Claims 1-110 are pending.

RESPONSE TO APPLICANT'S ELECTION

2. Applicant's election with traverse of Group IV in Paper No. 5, filed 5/19/03, is acknowledged. The traversal is on the ground(s) that all of the chelants classify in the same class and subclass. The restriction into groups has been WITHDRAWN. However, the election of species requirement is MAINTAINED. It should be noted that Applicant has elected to prosecute to the species wherein the chelant is tripodal; the spacer, A, is N; E1, E2, and E3 are $(CH_2)_k-NHCOCH_2N(CH_2COOH)_2$; and the radionuclide is ^{90}Y . Furthermore, it is noted that Applicant has traversed the election of species requirement, but has not provided grounds for the traversal. Thus, the election of species requirement is still deemed proper and is therefore made FINAL.

Initially, Applicant's elected species was searched. However, since no prior art could be found to reject Applicant's invention the search was expanded to the following:

(1) **EXP #1:** A = R1-C, R1-Si, R1-Ge, N, P, and P(O);

E1, E2, and E3 = $(CR_{17}R_{18})_k-Z-X-(CR_{19}R_{20})NR_{21}R_{22}$;

k = 0 – 3;

Z = bond, O, NH, NR₁NR₁, ONH, N(OR₁);

X = P(O)(OR₁)

l = 1 – 3;

R1 and R17-R22 are as set forth in the claims.

(2) **EXP #2**: A = R1-Si; k = 0 ; m = 3; R1 = H.

Notes: (A) The search was not further extended because prior art was found which could be used to reject Applicant's claims.

(B) The search of claims 1, 3-9, 15, 17-22, 27, 39, and 66-86 was not extended beyond Applicant's elected species and EXP #1.

WITHDRAWN CLAIMS

3. Claims 2, 10-14, 16, 23-26, 28, 35-38, 40, 47-65, 88, and 90-110 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention/species.

112 REJECTIONS

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 29-34, 41-46, and 89 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 29-34: The claims as written are ambiguous because they all refer back to claim 28 which is directed to a four chelating arms instead of a tripodal chelant. In other words, should claim 29 read on claim 27 instead of claim 28.

Claims 41-46: The claims as written are ambiguous because they refer back to claim 40 which is directed to a four chelating arms complex instead of a tripodal chelant. In other words, should claim 41 depend on claim 39 instead of claim 40.

Claim 89: The claim as written is ambiguous because it is unclear whether Applicant intended the claim to refer back to claim 87 instead of claim 60.

102 REJECTIONS

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 87 and 89 are rejected under 35 U.S.C. 102(b) as being anticipated by Hubler et al (Chem. Eur. J., 1997, Vol. 3, No. 10, pages 1608 – 1616).

Hubler et al disclose the nature of the metal-silicon bond in $[M(SiR_3)H_3(PPh_3)_3]$ wherein $M = Ru$ or Os and the crystal structure of $[Os\{Si(N\text{-pyrrolyl})_3\}H_3(PPh_3)_3]$. In particular, Hubler et al disclose compound 10b, $HSi(NH_2)_3$ (page 1611, Table 3 and, column 2, first complete paragraph).

Thus, both Applicant and Hubler et al disclose a chelant encompassed by the formula of independent claim 87, $A[(CR_1R_2)_3NH_2]_m$ when $k = 0$; $m = 3$; $A = R_1-Si$; and $R_1 = H$.

Art Unit: 1616

ALLOWABLE CLAIMS

8. Claims 1, 3-9, 15, 17-22, 27, 39, and 66-86 are allowable over the prior art of record because the prior art neither anticipates nor renders obvious Applicant's elected species and the species of EXP #1 and uses thereof.

SPECIFICATION

9. This application filed under former 37 CFR 1.60 lacks the necessary reference to the prior application. A statement reading "This application claims benefit to provisional application number 60/260,618, filed 1/9/01." should be entered following the title of the invention or as the first sentence of the specification. Also, the current status of all nonprovisional parent applications referenced should be included.

COMMENTS/NOTES


10. Applicant needs to comply with the sequence rules because there are sequences (e.g., page 53, lines 2-3, 8-9, 14-15, and 28) present in the case. Please see the attached notice regarding compliance with the sequence rules.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Jones whose telephone number is (703) 308-4640. The examiner can normally be reached on Mon.-Fri. (alternate Mon.), 6:45 a.m. - 4:15 p.m..

Art Unit: 1616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on (703) 308 - 2927. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4556 for regular communications and (703) 308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.


D. L. Jones
Primary Examiner
Art Unit 1616

July 23, 2003

NOTICE TO COMPLY WITH THE SEQUENCE RULES

This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. Applicant must comply with the requirements of the sequence rules (37 CFR 1.821 - 1.825) before the application can be examined under 35 U.S.C. §§ 131 and 132.


APPLICANT IS GIVEN THREE MONTHS (see MPEP 2421.03) FROM THE DATE OF THIS LETTER WITHIN WHICH TO COMPLY WITH THE SEQUENCE RULES, 37 CFR 1.821 - 1.825. Failure to comply with these requirements will result in ABANDONMENT of the application under 37 CFR 1.821(g). Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a). Direct the reply to the undersigned. Applicant is requested to return a copy of the attached Notice to Comply with the reply.

Papers related to this application may be submitted to Group 1600 by facsimile transmission. Papers should be faxed to the Group 1600 fax machine at (703) 308-4556. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30; November 15, 1989.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to D. L. Jones whose telephone number is (703) 308-4640. The examiner can normally be reached on Monday - Friday, 6:45 a.m. - 3:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jose' Dees can be reached on (703) 308-4628. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4556 for regular communications and (703) 308-4556 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.


D. L. Jones
Primary Examiner
Art Unit 1619

July 23, 2003

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 CFR 1.821 - 1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c).
- ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached marked-up copy of the "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e).
- ☐ 7. Other: _____

Applicant must provide:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing"
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d)

For questions regarding compliance with these requirements, please contact:

For Rules Interpretation, call (703) 308-1123
For CRF submission help, call (703) 308-4212
For PatentIn software help, call (703) 308-6856

Please return a copy of this notice with your response.